



SDI Review Form 1.6

Journal Name:	Journal of Cancer and Tumor International
Manuscript Number:	Ms_JCTI_42759
Title of the Manuscript:	To study and compare the relationship between preoperative serum TSH and frequency of differentiated thyroid cancer
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	There is mounting evidence that the serum concentration of TSH is an independent predictor for the diagnosis of thyroid malignancy in patients with nodular thyroid disease. Furthermore, preoperative serum TSH concentrations are higher in patients with more aggressive tumours, suggesting a potential role for TSH in the progression of differentiated thyroid cancer. Based on these observations, patients with higher serum TSH concentrations and borderline cytological results may require more aggressive investigation and treatment when compared with those with lower baseline TSH levels. The mechanisms underlying the finding of higher serum TSH in patients with thyroid cancer remain unexplained. I thought TSH<0.4µU/ml was associated with a reduction in the risk of papillary thyroid carcinoma. I ask some questions to author. 1. Please tell me the reason why benign group occupied in higher TSH (>5.5) compared to malignant group in Table 2. 2. Please tell me the reason why there is no difference in TSH level between benign and malignant in male in Table 4.	Thank you sir for your valuable comments highlighting the potential role of TSH in the progression of differentiated thyroid cancer. As you are aware there are multiple risk factors in the development and progression of thyroid cancer. Apart from age, male gender is a risk factor for thyroid malignancy despite the fact that thyroid malignancies are more common in female patients. The reason why TSH level is not different between the malignant and benign thyroid disease in male patients and the higher TSH value observed in benign group compared to the malignant group in our study only highlights the fact that more than TSH, other risk factors may play a prominent role in the development of thyroid cancer. With the ever increasing knowledge on the genes that are involved in the pathogenesis of thyroid malignancy, we are yet to find a pathway to explain the role of TSH in influencing the genetic factors. Hence till now the American Thyroid Association has not recommended strongly the use of Thyroxine in the preoperative setting to suppress the growth of benign thyroid nodules. I believe that once a gene is involved in triggering the signal pathway involved in thyroid tumorigenesis, it diminishes the influence of TSH levels at this juncture. However TSH is required by the thyrocytes for their physiological function and for the growth of the gland. It is not surprising that the growth of the remaining malignant transformed thyrocytes is suppressed when suppressive doses of thyroxine is given in post operative management of differentiated thyroid malignancy. Tumorigenesis of thyroid cancer is complex and in our patients we could not relate a higher TSH level with thyroid malignancy perhaps highlighting the role of other risk factors. I hope this reply was able to address the concerns raised by the reviewer.
Minor REVISION comments		
Optional/General comments		